

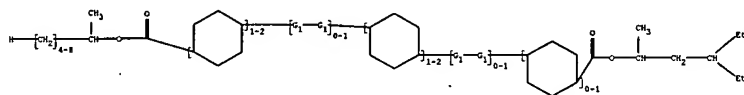
# WEST Search History

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DATE: Wednesday, December 29, 2004

Hide?	Set Name	Query	Hit Count
<i>DB=USPT,EPAB,JPAB,DWPI,TDBD; PLUR=NO; OP=ADJ</i>			
<input type="checkbox"/>	L10	6677475 or 6730371 or 6821581	6
<input type="checkbox"/>	L9	6835427 or 6699532 or 6805921	6
<input type="checkbox"/>	L8	15 same liquid crystal\$	26
<input type="checkbox"/>	L7	15 and optically active	5
<input type="checkbox"/>	L6	15 same optically active	2
<input type="checkbox"/>	L5	swallow\$ tail\$	449
<input type="checkbox"/>	L4	ep-1380567-\$.did.	2
<i>DB=PGPB; PLUR=NO; OP=ADJ</i>			
<input type="checkbox"/>	L3	US-20040127538-A1.did.	1
<input type="checkbox"/>	L2	US-20040127538-A1.did.	1
<i>DB=USPT,EPAB,JPAB,DWPI,TDBD; PLUR=NO; OP=ADJ</i>			
<input type="checkbox"/>	L1	ep-1380576-\$.did.	2

END OF SEARCH HISTORY



chain nodes :

1 2 3 4 5 6 7 16 17 26 27 28 29 30 31 32 33 34 41 42

ring nodes :

10 11 12 13 14 15 20 21 22 23 24 25 43 44 45 46 47 48

chain bonds :

1-2 1-3 1-11 3-4 4-5 4-6 6-7 14-16 16-17 17-22 25-41 26-28  
26-27 26-48 28-29 29-30 29-31 31-32 32-33 32-34 41-42 42-45

ring bonds :

10-11 10-15 11-12 12-13 13-14 14-15 20-21 20-25 21-22 22-23 23-24  
24-25 43-44 43-48 44-45 45-46 46-47 47-48

exact/norm bonds :

1-2 1-3 3-4 10-11 10-15 11-12 12-13 13-14 14-15 14-16 16-17  
17-22 20-21 20-25 21-22 22-23 23-24 24-25 25-41 26-28 26-27 28-29  
41-42 42-45 43-44 43-48 44-45 45-46 46-47 47-48

exact bonds :

1-11 4-5 4-6 6-7 26-48 29-30 29-31 31-32 32-33 32-34

G1:C,O

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:CLASS 17:CLASS 20:Atom  
21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:CLASS 27:CLASS 28:CLASS  
29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:CLASS 34:CLASS 41:CLASS  
42:CLASS 43:Atom 44:Atom 45:Atom 46:Atom 47:Atom 48:Atom

AN 2004:35450 CAPLUS  
 DN 140:102117  
 ED Entered STN: 15 Jan 2004  
 TI Chiral compounds as dopants for liquid crystals  
 IN Motoyama, Yuki; Aoki, Takashi; Johnno, Masahiro  
 PA Mitsubishi Gas Chemical Company, Inc., Japan  
 SO Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C07C069-94  
 ICS C07C069-90; C09K019-58  
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)  
 Section cross-reference(s): 75

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1380567	A1	20040114	EP 2003-14549	20030707
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	JP 2004035525	A2	20040205	JP 2002-198697	20020708
PRAI	JP 2002-198697	A	20020708		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1380567	ICM	C07C069-94
	ICS	C07C069-90; C09K019-58
EP 1380567	ECLA	C07C069/94; C09K019/58B
JP 2004035525	FTERM	4H006/AA01; 4H006/AB64; 4H006/BJ50; 4H006/KA14; 4H027/BA02; 4H027/BD14; 4H027/CF10; 4H027/CG10; 4H027/CP10; 4H027/DK10

OS MARPAT 140:102117

AB The present invention relates to a optically active compound of the general formula:  $C_nH_{2n+1}CHCH_3-OOC-X-COO-CH(CH_3)CH_2CH(C_2H_5)_2$  ( $n = 4-8$ ;  $X =$  -Ph-COO-Ph-Ph-, -Ph-Ph-COO-Ph-, -Ph-OOC-Ph-Ph-, -Ph-Ph-OOC-Ph-, -Ph-Ph-Ph-, -Cy-COO-Ph-Ph-, -Ph-Ph-OOC-Cy-, -Ph-OOC-Ph-COO-Ph-, -Ph-OOC-Cy-COO-Ph-, -Ph-OOC-Np-COO-Ph-, -Np-OOC-Ph- or -Ph-COO-Np- in which Ph = 1,4-phenylene group; Cy = trans-1,4-cyclohexylene group; Np = 2,6-naphthylene group; C\* = asym. carbon), and a nematic liquid crystal composition containing the above optically active compound According to the present

invention, there is provided a nematic liquid crystal composition containing the

optically active compound having a helical twisting power (HTP) of 10 or more and giving a chiral dopant for a nematic liquid crystal, which chiral dopant has a property that the pitch of its induced helix decreases in length with an increase in temperature

ST chiral compd dopant liq crystal display

IT Liquid crystal displays

(chiral compds. as dopants for liquid crystals)

IT Liquid crystals

(nematic; chiral compds. as dopants for liquid crystals)

IT 2345-34-8, 4-Acetoxybenzoic acid 2351-37-3, 4,4'-Biphenyldicarbonyl chloride 6033-24-5 58574-03-1, 4'-Hydroxybiphenyl-4-carboxylic acid 220150-55-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(chiral compds. as dopants for liquid crystals)

IT 27914-73-4P, 4-Acetoxybenzoyl chloride 75175-09-6P, 4'-Acetoxybiphenyl-4-carboxylic acid 109233-63-8P, 4'-Acetoxybiphenyl-4-carbonyl chloride 122370-33-6P 183538-51-4P 443682-48-2P 443682-49-3P 443682-63-1P 443682-67-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(chiral compds. as dopants for liquid crystals)  
IT 643012-98-0P 643013-02-9P 643013-07-4P  
643013-10-9P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(chiral compds. as dopants for liquid crystals)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Anon; PATENT ABSTRACTS OF JAPAN 1990, V014(539), PC-0782
- (2) Anon; PATENT ABSTRACTS OF JAPAN 1993, V017(291), PC-1067
- (3) Anon; PATENT ABSTRACTS OF JAPAN 1993, V017(309), PC-1070
- (4) Dainippon Ink & Chem Inc; JP 02227489 A 1990 CAPLUS
- (5) Kanebo Ltd; JP 05017405 A 1993 CAPLUS
- (6) Kashima Sekiyu Kk; JP 05025085 A 1993 CAPLUS
- (7) Mitsubishi Gas Chemical Co; EP 1249484 A 2002 CAPLUS
- (8) Mitsubishi Gas Chemical Co; EP 1270542 A 2003 CAPLUS
- (9) Nakauchi, J; JAPANESE JOURNAL OF APPLIED PHYSICS 1989, V28(2), PL272 CAPLUS